AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) Method for preparing a medical liquid from a liquid, such as water, and two concentrated solutions, comprising the following steps:

[[-]] circulating the liquid in a preparation conduit [[(15)]], at a flowrate Q0;

[[-]] injecting into the preparation conduit [[(15)]], at a flowrate Q1, a first concentrated solution containing a first ionic substance A and a second ionic substance B, ~~the ionic substances A and B having, respectively, in the first concentrated solution, a concentration [Asol] and a first concentration [B1sol]~~ the second ionic substance B being potassium;

[[-]] injecting into the preparation conduit [[(15)]], at a flowrate Q2, a second concentrated solution containing the first ionic substance A, the concentration of the second ionic substance B in the second concentrated solution being equal to zero ~~and the second ionic substance B, the first ionic substance A having, in the second concentrated solution, the same concentration [Asol] as in the first concentrated solution, and the second ionic substance B having, in the second concentrated solution, a second concentration [B2sol] different than the first concentration [B1sol] in the first concentrated solution~~;

[[-]] regulating the injection flowrate Q1 of the first concentrated solution and the injection flowrate Q2 of the ~~first and~~ second concentrated ~~solutions~~ solution in such a way that at any given time the diluted solution resulting from the mixing of the liquid

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and the concentrated solutions has a desired concentration [Ades] of the first ionic substance A and a desired concentration [Bdes] of the second ionic substance B.

2. (Currently Amended) Method according to Claim 1, further comprising varying over the course of time the injection flowrate Q1 and the injection flowrate Q2 of the concentrated solutions A and B in such a way that the concentration of the second substance B in the diluted solution varies over the course of time in accordance with a predetermined profile.

3. (Currently Amended) Method according to Claim [[2]] 1, characterized in that the flowrate Q0 of the liquid in the conduit is constant, and in that the sum of the injection flowrates Q1 + Q2 of the concentrated solutions A and B is maintained constant in such a way that the concentration of the first substance A in the diluted solution remains substantially constant.

4. (Currently Amended) Method according to ~~one of Claims 1 to 3~~ Claim 1, further comprising varying over the course of time the injection flowrate Q1 and the injection flowrate Q2 of the concentrated solutions A and B in such a way that the concentration of the first substance A in the diluted solution varies over the course of time in accordance with a predetermined profile.

5-17 (Canceled)

18. (New) Method according to Claim 2, characterized in that the predetermined concentration profile is a descending profile whose initial value is between approximately 2.5 mEq/l and approximately 5.5 mEq/l and whose final value is between approximately 1 mEq/l and approximately 2 mEq/l.

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19. (New) Method according to Claim 1, characterized in that the substance A is sodium.

20. (New) Method for preparing a medical liquid from a liquid, such as water, and two concentrated solutions, comprising the following steps:

circulating the liquid in a preparation conduit, at a flowrate Q0;

injecting into the preparation conduit, at a flowrate Q1, a first concentrated solution containing at least a first ionic substance A and a second ionic substance B;

injecting into the preparation conduit, at a flowrate Q2, a second concentrated solution, the two said concentrated solutions being identical to each other except that the concentration of the second ionic substance B differs from one solution to the other;

regulating the injection flowrate Q1 of the first concentrated solution and the injection flowrate Q2 of the second concentrated solution in such a way that at any given time the diluted solution resulting from the mixing of the liquid and the concentrated solutions has a desired concentration [Ades] of the first ionic substance A and a desired concentration [Bdes] of the second ionic subtance B.

21. (New) Method according to Claim 20, further comprising varying over the course of time the injection flowrate Q1 and the injection flowrate Q2 of the concentrated solutions A and B in such a way that the concentration of the second substance B in the diluted solution varies over the course of time in accordance with a predetermined profile.

22. (New) Method according to Claim 21, characterized in that the substance B is potassium, and in that the predetermined concentration profile is a descending

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profile whose initial value is between approximately 2.5 mEq/l and approximately 5.5 mEq/l and whose final value is between approximately 1 mEq/l and approximately 2 mEq/l.

23. (New) Method according to Claim 20, characterized in that the flowrate Q0 of the liquid in the conduit is constant, and in that the sum of the injection flowrates Q1 + Q2 of the concentrated solutions A and B is maintained constant in such a way that the concentration of the first substance A in the diluted solution remains substantially constant.

24. (New) Method according to Claim 20, further comprising varying over the course of time the injection flowrate Q1 and the injection flowrate Q2 of the concentrated solutions A and B in such a way that the concentration of the first substance A in the diluted solution varies over the course of time in accordance with a predetermined profile.

25. (New) Method according to Claim 20, characterized in that the substance A is sodium, and in that the substance B is one of potassium, calcium, and magnesium.

26. (New) Method for extracorporeal treatment of blood comprising the following steps:

preparing a treatment liquid from a liquid, such as water, and two concentrated solutions, comprising the following steps:

circulating the liquid in a preparation conduit, at a flowrate Q0,

injecting into the preparation conduit, at a flowrate Q1, a first concentrated solution containing at least a first ionic substance A and a second ionic

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substance B, the ionic substance B having, in the first concentrated solution, a first concentration [B1sol],

injecting into the preparation conduit, at a flowrate Q2, a second concentrated solution containing at least the first ionic substance A, the second ionic substance B having, in the second concentrated solution, a second concentration [B2sol] different than the first concentration [B1sol] in the first concentrated solution, and

regulating the injection flowrate Q1 of the first concentrated solution and the injection flowrate Q2 of the second concentrated solution in such a way that at any given time the diluted solution resulting from the mixing of the liquid and the concentrated solutions has a desired concentration [Ades] of the first ionic substance A and a desired concentration [Bdes] of the second ionic substance B;

supplying the treatment liquid to an inlet of a membrance exchanger;

removing a spent liquid from an outlet of the membrane exchanger;

measuring the concentration of the second ionic substance B in the treatment liquid; and

measuring the concentration of the second ionic substance B in the spent liquid,

wherein the injection flowrates Q1 and Q2 are regulated on the basis of the concentrations of the second ionic substance B measured in the treatment liquid and in the spent liquid.

27. (New) Method according to Claim 26, characterized in that the injection flowrates Q1 and Q2 are regulated on the basis of a difference between the

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concentrations of the second ionic substance B measured in the treatment liquid and in the spent liquid.

28. (New) Method according to Claim 27, characterized in that the injection flowrates Q1 and Q2 are regulated in such a way that the difference between the concentrations of the second ionic substance B measured in the treatment liquid and in the spent liquid remains substantially equal to a given value.

29. (New) Method according to Claim 26, characterized in that the first ionic substance A has, in the second concentrated solution, a same concentration [Asol] as in the first concentrated solution.

30. (New) Method according to Claim 26, further comprising the step of infusing a patient with a third solution containing at least a third ionic substance C absent from the treatment liquid.

31. (New) Method according to Claim 30, characterized in that the third ionic substance C is bicarbonate.

32. (New) Method according to Claim 26, characterized in that the step of preparing a treatment liquid from a liquid, such as water, and two concentrated solutions, is performed according to the method of any one of claims 1 to 4 and 18 to 31.

33. (New) System for extracorporeal treatment of blood, comprising:

a device for preparing a treatment liquid from a liquid, such as water, and two concentrated solutions, comprising:

a preparation conduit with a first end intended to be connected to a source of liquid, such as water, and a second end for delivering a treatment liquid,

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first injection means for injecting into the preparation conduit, at a flowrate Q1, a first concentrated solution containing at least a first ionic substance A and a second ionic substance B, the second ionic substance B having, respectively, in the first concentrated solution, a first concentration [B1sol],

second injection means for injecting into the preparation conduit, at a flowrate Q2, a second concentrated solution containing at least the first ionic substance A, the second ionic substance B having, in the second concentrated solution, a second concentration [B2sol] different than the first concentration [B1sol] in the first concentrated solution, and

means for regulating the first and second injection means and for adjusting the injection flowrate Q1 of the first concentrated solution and the injection flowrate Q2 of the second concentrated solution in such a way that at any given time the diluted solution resulting from the mixing of the liquid and the concentrated solutions has a desired concentration [Ades] of the first substance A and a desired concentration [Bdes] of the second substance B;

a supply conduit for supply of treatment liquid, for connecting the preparation conduit of the treatment device to an inlet of a membrane exchanger;

a removal conduit for removing spent liquid, intended to be connected to an outlet of the membrane exchanger;

a first device for measuring the concentration of the second ionic substance B in the treatment liquid, arranged on the preparation conduit; and

a second device for measuring the concentration of the second ionic substance B in the spent liquid, arranged on the removal conduit,

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wherein the regulating means is provided for regulating at least one of the first and second injection means on the basis of information supplied by the first and second devices for measuring the concentration of the second ionic substance B.

34. (New) Treatment system according to Claim 33, characterized in that the first ionic substance A has, in the second concentrated solution, a same concentration [Asol] as in the first concentrated solution.

35. (New) Treatment system according to Claim 34, characterized in that the two said concentrated solutions are identical to each other except that the concentration of the second ionic substance B differs from one solution to the other.

36. (New) Treatment system according to Claim 33, characterized in that the regulating means is provided for varying over the course of time at least one of the injection flowrate Q1 and the injection flowrate Q2 of the concentrated solutions A and B in such a way that the concentration of the second substance B in the diluted solution varies over the course of time in accordance with a predetermined profile.

37. (New) Treatment system according to Claim 33, characterized in that the regulating means is provided for varying over the course of time at least one of the injection flowrate Q1 and the injection flowrate Q2 of the concentrated solutions A and B in such a way that the concentration of the first substance A in the diluted solution varies over the course of time in accordance with a predetermined profile.

38. (New) Treatment system according to Claim 33, characterized in that the regulating means is provided for maintaining constant the sum of the injection flowrates QI + Q2 of the concentrated solutions A and B, in such a way that, for a constant

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flowrate Q0 of the liquid in the conduit, the concentration of the first substance A in the diluted solution remains substantially constant.

39. (New) Treatment system according to Claim 33, further comprising means for infusing a patient with a third solution containing at least one ionic substance C absent from the treatment liquid.

40. (New) Treatment system according to Claim 39, characterized in that the substance C is bicarbonate.

41. (New) Kit of solutions for extracorporeal treatment of blood, comprising two concentrated solutions each containing a plurality of ionic substances, the ionic substances and their concentrations being identical to each other in the two solutions except that the concentration of the second ionic substance B differs from one solution to the other.

42. (New) Kit of solutions for extracorporeal treatment of blood, comprising two concentrated solutions, the first of said concentrated solutions containing at least a first ionic substance A and a second ionic substance B, the second ionic substance B being potassium, the second of said concentrated solutions containing at least the first ionic substance A, the concentration of the second ionic substance B in the second concentrated solution being equal to zero.

43. (New) Bag with two compartments for containing each of the concentrated solutions from the kit according to Claim 41 or Claim 42.

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